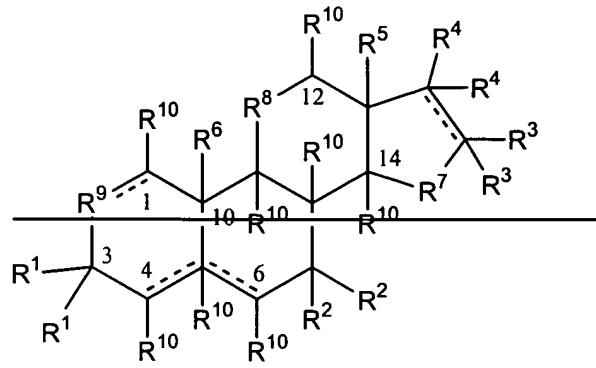


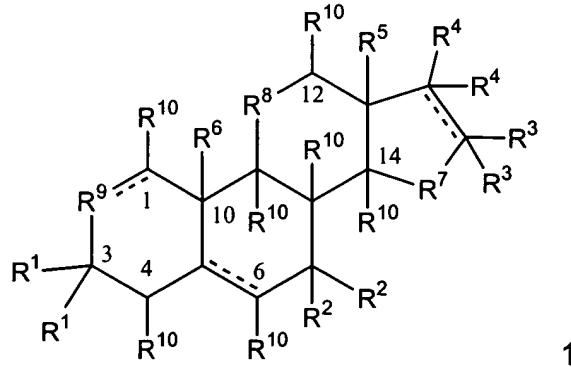
AMENDMENTS TO THE CLAIMS

This listing of claims replaces any prior version of the claims in the application.

5 Claim 1 (currently amended): A method to treat a blood cell deficiency in a subject in need thereof comprising administering to the subject, or delivering to the subject's tissues, an effective amount of a compound of formula 1



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10 wherein, the dotted lines are optional double bonds and hydrogen at the 5-position, if present, is in the α -configuration, each R¹, R², R³, R⁴, R⁵, R⁶ and R¹⁰ independently are -H, OH, -OR^{PR}, -SR^{PR}, -N(R^{PR})₂, -O-Si-(R¹³)₃, -CHO, -CHS, -CH=NH, -CN, -SCN, -NO₂, -OSO₃H, -OPO₃H, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a thioacyl group, a carbonate, a carbamate, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an

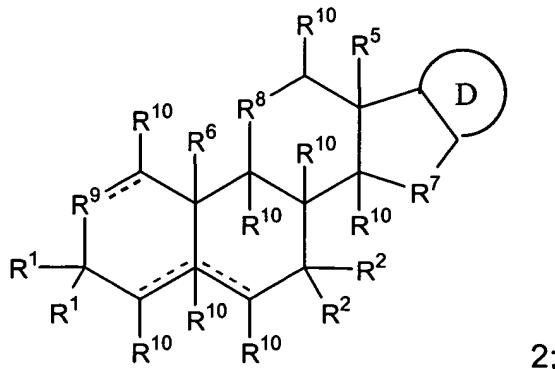
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optionally substituted heteroaryl moiety, an optionally substituted heterocycle, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer, or,

one or more of both R¹, R², R³ or R⁴ together comprise an independently selected spiro ring, or

~~one more of R¹, R², R³, R⁴, R⁵, R⁶ and R¹⁰~~ one more of R², R³ and R¹⁰
independently are =O, =S, =N-OH, =CH₂, or a spiro ring and the hydrogen atom or the second variable group that is bonded to the same carbon atom is absent, or,

one or more of two adjacent R¹-R⁶ and R¹⁰ comprise an independently selected an acetal, a thioacetal, ketal or thioketal, or
all R³ and R⁴ together comprise a structure of formula 2



R⁷ is -C(R¹⁰)₂-, -C(R¹⁰)₂-C(R¹⁰)₂-, -C(R¹⁰)₂-C(R¹⁰)₂-C(R¹⁰)₂-, -C(R¹⁰)₂-O-C(R¹⁰)₂-, -C(R¹⁰)₂-S-C(R¹⁰)₂-, -C(R¹⁰)₂-NR^{PR}-C(R¹⁰)₂-, -O-, -O-C(R¹⁰)₂-, -S-, -S-C(R¹⁰)₂-, -NR^{PR}- or -NR^{PR}-C(R¹⁰)₂;

R⁸ and R⁹ independently are -C(R¹⁰)₂-, -C(R¹⁰)₂-C(R¹⁰)₂-, -O-, -O-C(R¹⁰)₂-, -S-, -S-C(R¹⁰)₂-, -NR^{PR}- or -NR^{PR}-C(R¹⁰)₂-, wherein R¹⁰ at R⁸ and R⁹ independently are -H, halogen or optionally substituted alkyl or one or both of R⁸ or R⁹ independently are absent, leaving a 5-membered ring;

R¹³ independently is C₁₋₆ alkyl;

R^{PR} independently is -H or a protecting group;

D is a heterocycle or a 4-, 5-, 6- or 7-membered ring that comprises saturated carbon atoms, wherein 1, 2 or 3 ring carbon atoms of the 4-, 5-, 6- or 7-

membered ring are optionally independently substituted with -O-, -S- or -NR^{PR}- or where 1, 2 or 3 hydrogen atoms of the heterocycle or where 1, 2 or 3 hydrogen atoms of the 4-, 5-, 6- or 7-membered ring are substituted with -OH, -OR^{PR}, -SR^{PR}, -N(R^{PR})₂, -O-Si-(R¹³)₃, -CHO, -CHS, -CH=NH, -CN, -SCN, -NO₂, -OSO₃H, -

5 OPO₃H, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a thioacyl group, a carbonate, a carbamate, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heteroaryl moiety, an optionally substituted heterocycle, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide or a polymer, or,

10 15 one more of the ring carbons in D are substituted with =O, =S, =N-OH, =CH₂, or a spiro ring, or

one or more of two adjacent ring carbons in D comprise an independently selected acetal, thioacetal, ketal or thioketal, or

D comprises two 5- or 6-membered rings, wherein the rings are fused or are linked by 1 or 2 bonds, or a metabolic precursor or a biologically active metabolite thereof, provided that the compound is not 5-androstene-3 β -ol-17-one, 5-androstene-3 β ,17 β -diol, 5-androstene-3 β ,7 β ,17 β -triol or a derivative of any of these three compounds that can convert to these compounds by hydrolysis.

25 Claim 2 (currently amended): The method of claim 1 wherein one or two R¹⁰ at the 1, 4, 6, 8, 9, 12 and 14 positions is are not -H.

Claim 3 (original): The method of claim 2 wherein the one or two R¹⁰ at the 1, 4, 6, 8, 9, 12 and 14 positions are independently selected from -F, -Cl, -Br, -I, -

OH, =O, -CH₃, -C₂H₅, an ether optionally selected from -OCH₃ and -OC₂H₅, and an ester optionally selected from -O-C(O)-CH₃ and -O-C(O)-C₂H₅.

Claim 4 (original): The method of claim 3 wherein the one or two R¹⁰ at the
5 1, 4, 6, 8, 9, 12 and 14 positions are independently selected from -F and -OH.

Claim 5 (original): The method of claim 4 wherein R¹, R², R³ and R⁴ are independently selected from -H, -OH, =O, an ester and an ether.

10 Claim 6 (original): The method of claim 1 wherein the subject has thrombocytopenia or neutropenia.

15 Claim 7 (original): The method of claim 1 wherein the subject's circulating platelets, red cells, mature myelomonocytic cells, or their precursor cells, in circulation or in tissue is detectably increased.

Claim 8 (original): The method of claim 7 wherein the subject's circulating platelets are detectably increased.

20 Claim 9 (original): The method of claim 7 wherein the subject's circulating myelomonocytic cells are detectably increased.

Claim 10 (original): The method of claim 7 wherein the circulating myelomonocytic cells are neutrophils.

25 Claim 11 (original): The method of claim 7 wherein the myelomonocytic cells are basophils, neutrophils or eosinophils.

30 Claim 12 (original): The method of claim 7 wherein the subject's circulating red cells are detectably increased.

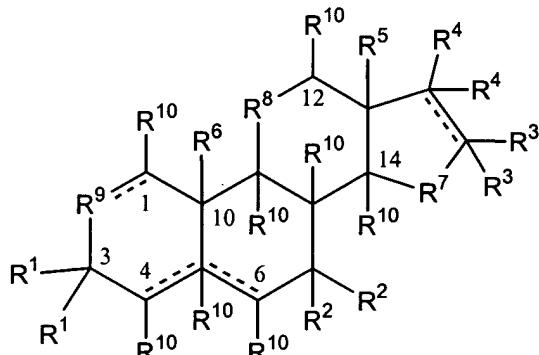
Claim 13 (original): The method of claim 7 wherein the subject is has renal failure.

5 Claim 14 (original): The method of claim 7 further comprising the steps of obtaining blood from the subject before administration of the formula 1 compound and measuring the subject's white or red cell counts and optionally, on one, two, three or more occasions, measuring the subject's circulating white cell or red cell counts after administration of the formula 1 compound.

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Claims 15-45 (canceled)

Claim 46 (currently amended): The method of claim 1 wherein the compound of formula 1 has the structure



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wherein, each R¹, R², R³, R⁵, R⁶ and R¹⁰ independently are -H, OH, -OR^{PR}, -SR^{PR}, -N(R^{PR})₂, -O-Si-(R¹³)₃, -CHO, -CHS, -CH=NH, -CN, -SCN, -NO₂, -OSO₃H, -OPO₃H, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a thioacyl group, a carbonate, a carbamate, a halogen, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycle,

optionally substituted monosaccharide, optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer, or,

one or more of both R¹, R² or R³ together comprise an independently selected spiro ring, or

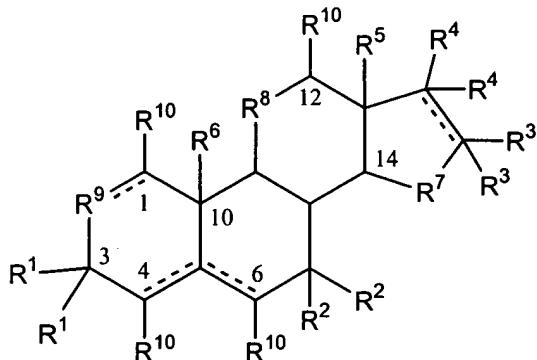
5 ~~one more of R¹, R², R³ and R¹⁰ are one more of R², R³ and R¹⁰ are =O,~~
~~=S, =N-OH, =CH₂, or a and~~

one R⁴ is -NH₂, -NHR^{PR}, -N(R^{PR})₂, an amide, an amino acid, a peptide, and the other R⁴ is -H, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted

10 heteroaryl or optionally substituted heterocycle, or,

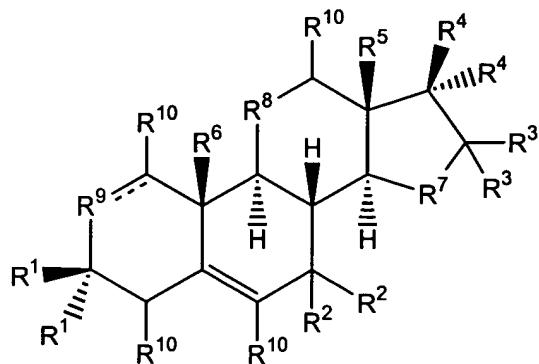
both R⁴ together are =NOH or =NOC(O)CH₃.

Claim 47 (previously added): The method of claim 46 wherein the compound of formula 1 has the structure



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Claim 48 (previously added): The method of claim 47 wherein the compound of formula 1 has the structure



Claim 49 (previously added): The method of claim 48 wherein

R¹ in the β -configuration is -OH, -SH, -Br, -I, an ester, a carbonate, -O-

5 monosaccharide, -O-disaccharide;

R¹ in the α -configuration is -H, optionally substituted alkyl, optionally substituted alkenyl or optionally substituted alkynyl;

R⁴ in the α -configuration is -H, -CN, -SCN, optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl or an ether;

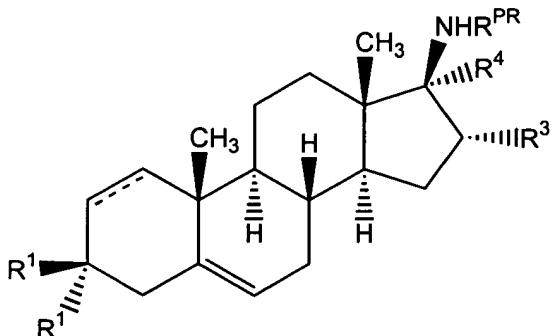
10 R⁴ in the β -configuration is -NH₂, -NHR^{PR} or -N(R^{PR})₂;

R⁵ is -CH₃; and

R⁶ is -H or -CH₃.

Claim 50 (previously added): The method of claim 49 wherein the

15 compound has the structure

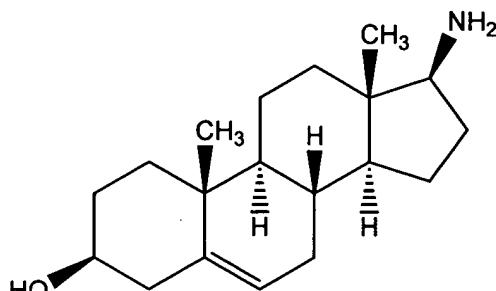


wherein R^{PR} is -H, an amide or a carbamate.

Claim 51 (previously added): The method of claim 50 wherein the subject is a mammal.

5 Claim 52 (previously added): The method of claim 51 wherein the blood cell deficiency is neutropenia and the mammal has neutropenia, or is subject to developing neutropenia.

Claim 53 (previously added): The method of claim 52 wherein the compound has the structure

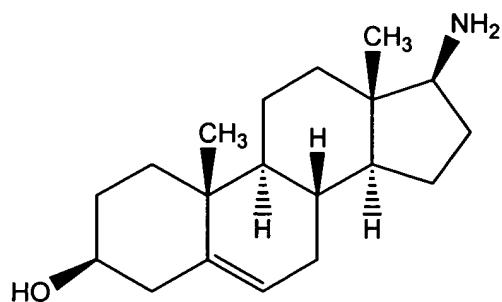


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Claim 54 (previously added): The method of claim 53 wherein the neutropenia is associated with a chemotherapy or radiation exposure.

15 Claim 55 (new): The method of claim 51 wherein the blood cell deficiency is thrombocytopenia and the mammal has thrombocytopenia, or is subject to developing thrombocytopenia.

20 Claim 56 (new): The method of claim 55 wherein the compound has the structure



Claim 57 (new): The method of claim 56 wherein the thrombocytopenia is associated with a chemotherapy or radiation exposure.